ABSTRACT:

Methods and apparatus for early detection and identification of a threat such as individuals carrying hidden explosive materials, land mines on roads, etc. are disclosed. Methods comprise transmitting radar signals in the direction of a potential threat, measuring the energy in reflected signals, dynamically generating a threat threshold value from signals received from multiple areas and comparing the energy in the reflected signals corresponding to different areas to the generated threat threshold value. The threat threshold value may be generated by averaging the weighted reflected energy measured from different areas during a single scan of a region including the different areas. The contribution to the threshold from different areas is weighted in some embodiments as a function of the distance from the transmitter and/or receiver to the particular area. Analysis of areas and treating different areas as segments facilitates accurate analysis and display of threat information.